

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012076**Date Inspected:** 08-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Lilin	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes No N/A	
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes No N/A	
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes No N/A	
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes No N/A	
		<b>Delayed / Cancelled:</b>	Yes No N/A	
<b>Bridge No:</b>	34-0006	<b>Component:</b>	Tower	

**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

**BAY 10:**

This QA Inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6027 (UT) report for this date. The member is identified as Tower Strut. The weld designations reviewed are as follows.

ED1-A6001-1- 7, 8, 9, 10, 11, 12

NDT Notification No-005194

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% and randomly Visual Testing of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified Tower Strut. The weld designations reviewed are as follows.

ED1-A6001-1-7,86,94,74,61,49,13,14,23,40,9,46,27,23,63,88

ED1-A6001-1- 85, not ready due to during Magnetic Particle Testing (MT) observed linear Indication transverse to the weld axis. Incident report generated. For more information see attached photos.

This QA informed ZPMC Quality Control (QC) identified as Mr. Yu Zhilai and American Bridge Fluor (ABF) QA

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identified as Mr. Zhong Hiulong. of this issue and that an incident report would be generated. For more information see attached photos.

NDT Notification No: 005198

This QA Inspector observed the following work in progress:

BAY 10

This QA Inspector observed ZPMC qualified welding personnel identified as 066477, Perform Flux Core Arc Welding (FCAW) on South tower lift 4 Fit lug. The weld identified as SSTL4-1C/L-102, near double diaphragm 119M top. ZPMC CWI Identified as Lilin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-4333-Tc-P4-F.

This QA Inspector observed ZPMC qualified welding personnel identified as 066477, Perform Flux Core Arc Welding (FCAW) on South tower lift 4 Fit lug. The weld identified as SSTL4-1C/L-104, near double diaphragm 119M top. ZPMC CWI Identified as Lilin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2333-Tc-P4-F.

This QA Inspector observed ZPMC qualified welding personnel identified as 066477, Perform Flux Core Arc Welding (FCAW) on South tower lift 4 Fit lug. The weld identified as SSTL4-1F/L-33, near double diaphragm 123M bottom. ZPMC CWI Identified as Lilin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-4333-Tc-P4-F.

This QA Inspector observed ZPMC qualified welding personnel identified as 066477, Perform Flux Core Arc Welding (FCAW) on South tower lift 4 Fit lug. The weld identified as SSTL4-1F/L-35, near double diaphragm 123M bottom. ZPMC CWI Identified as Lilin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2333-Tc-P4-F.

BAY 11:

This QA Inspector observed ZPMC qualified welding personnel identified as 042195. Perform Submerged Arc Welding (SAW) on Tower Flange Plate. Joint identified ND1-SA4-68-123M-5-1B, ND1-SA4-68-123M-8-1B, ND1-SA4-68-123M-7-1B, ZPMC CWI Identified as Yu Dong Ping. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3221-Tc-U5-S-1.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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## Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest phone: 15000422360, who represents the Office of Structural Materials for your project.

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**Inspected By:** Gaikwad,Shailesh

Quality Assurance Inspector

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**Reviewed By:** Clifford,William

QA Reviewer